



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,034	03/21/2001	Liang Chen	25061A	3539

22889 7590 04/22/2003

OWENS CORNING  
2790 COLUMBUS ROAD  
GRANVILLE, OH 43023

EXAMINER

WILSON, DONALD R

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 04/22/2003

b

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/814,034	CHEN ET AL. <i>g</i>
Examiner	Art Unit	
Donald R Wilson	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 17 March 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 17-22 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 17-22 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

Art Unit: 1713

## DETAILED ACTION

### ***Response to Restriction/Election of Species Requirement***

1. Applicant's cancellation of Claims 1-16 and 20 makes affirmation of the elected group of inventions due to the restriction requirement moot. However, applicant has not as required affirmed the election of species of glycerine as the poly-hydroxy cross-linking agent. Applicant needs to affirm this election in response to this Office Action.

### ***Response Amendment***

2. Applicant's amendment filed 3/17/03, has been fully considered with the following results.

3. The amendment overcomes the previous rejection under 35 U.S.C. § 112, second paragraph, which is withdrawn.

4. The amendment is not deemed to be persuasive in overcoming the rejections based upon Arkens'213, and these rejections are maintained for reasons discussed below.

5. Upon reconsideration the Examiner withdraws the rejection of claims under 35 U.S.C. 102(e,f or g) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chen'661, as well as the obviousness double patenting rejection based upon Chen'661. Applicant has shown that the cured compositions using the phosphite chain regulators are differentiated from the prior art materials using a mercaptan chain transfer agent.

### ***Previously Cited Statutes***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

### ***Claim Rejections - 35 USC § 112, Second Paragraph***

7. ~~Claims 17-19 and 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.~~

8. The language of Claim 1 is indefinite because it is unclear what the LOI test involves or what the conditions of measurement are. It would appear that the test is concerned with the loss on ignition of a

Art Unit: 1713

fiberglass composite. Thus, at a minimum, an LOI would depend on the percent loading in a composite containing the composition that is being claimed, as well as other parameters of the test conditions.

9. Claim 18 is indefinite because in the language “--- said phosphite based regulating agent further comprises ---“ it is unclear whether or not a composition comprising just sodium or potassium phosphite as the regulating agent would infringe the claim, i.e., such a composition would satisfy the presence of a phosphite based regulating agent of Claim 17, and might also be considered to satisfy the further constituent of Claim 18 being a sodium or potassium phosphite.

10. Claim 19 is indefinite because a hypophosphite ( $H_2PO_2^-$ ) is not a phosphite ( $H_2PO_3^-$ ) compound.

11. Claim 22 is indefinite because it depends from a cancelled claim.

***Claim Rejections - 35 USC § 102(b)/§ 103(a)***

12. ***Claims 17-19 and 21-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Arkens'213.*** The basis of this rejection was stated in Detailed Action § 25-29 of the previous Office Action.

13. In regards to the new claim limitation of “--- said regulating agent being suitable for use as a cross-linking agent in a subsequent reaction step ---“, clearly Arkens'213 teaches phosphite compounds to be used as cure accelerators (col. 6, lines 29-51), as well as being used as a chain transfer reagent in the polymerizations (col. 5, lines 6-18). Thus, he has clearly taught this new limitation of the claims. In regards to the curing temperatures limitation, Arkens'213 clearly teaches curing within this range for example in Example 3. In regards to the LOI limitation, it is unclear as to the meaning of the limitation. In any event, in as much as the composition is the same as that of the instant claims it is reasonable to assume that the properties would be the same.

It has been held that where applicant claims a composition in terms of function, property or characteristic where said function is not explicitly shown by the reference and where the examiner has explained why the function, property or characteristic is considered inherent in the prior art, it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ. *In re Best*, 195 USPQ 430, 433 (CCPA 1977); *In re Fitzgerald et al.*, 205 USPQ 594, 596 (CCPA 1980)..

Art Unit: 1713

14. The argument that “[n]or does the Arkens '213 patent teach the use of the phosphorous-containing accelerator and the polyacid component in the same molecule with an additional polyhydroxy crosslinking agent” cannot be sustained. As set forth in the previous Office Action,

“Arkens'213 discloses compositions suitable for binders for fiber glass comprising a polyacid, a glycol, and a phosphorous-containing accelerator (col. 2, lines 55-62)”, and

“A specific embodiment of the invention disclosed is the use of hypophorous acid and its salts as the chain transfer agent in making the polyacrylic acid, the purpose being to incorporate the phosphorous containing cure accelerator and the polyacid in the same molecule (col. 5, lines 11-18).”

Although Claim 17, now recites that the chain regulating agent is a phosphite as opposed to a hypophosphite, it appears that based upon Claim 19, applicant intended phosphite to encompass hypophosphite. However, even with the claim limited to phosphite this would still be encompassed by the teachings of Arkens'213, because as is seen in the incorporated by reference Hughes, sodium phosphite is generated in the polymerizations wherein sodium hypophosphite is used as the chain regulator (see Example 1).

15. In regards to the molecular weight limitations of Claims 21 and 22, as was previously pointed out “molecular weights at the lower end of 300, 1000 and 10,000 are specifically disclosed which would have made such molecular weights also readily envisaged (col. 4, lines 21-31).” In addition molecular weights of 2,000 are for instance disclosed in Examples 45 and 48. Although Arkens'213 itself doesn't disclose that the molecular weights are weight average molecular weights, such is taught by the incorporated by reference Hughes for the preparation of the hypophosphite chain regulated polymers, e.g., col. 2, lines 37-43, and it is reasonable to interpret the molecular weights to be on the same basis as the incorporated reference.

***Action Is Final***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

Art Unit: 1713

shortened statutory period; then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Future Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald R Wilson whose telephone number is 703-308-2398.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 703-308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications. The unofficial direct fax phone number to the Examiner's desk is 703-872-9029.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-2351.



Donald R Wilson  
Primary Examiner  
Art Unit 1713